

### Claims

- 1.- System for multiple intercommunication of data from information carrying cards provided with microprocessor and memory or similar, of the type of those used for
- 5 banking operations, buying operations, or for identification and other services, as for other operations of domestic kind, characterised in that it consist of:
- a user interface (1), preferably consisting of an autonomous remote control device, or one which is integrated in a cellular phone terminal of GSM or other technology, having housing means for one or several information and data
  - 10 carrying plates (2) of said cards, a printed circuit, flexible or of any other type suitable for making contact with said plates in order to read the information contained in said plates , a microprocessor (3) adequate for control, command and recording of the operations carried out from said user interface (1), information storage means (4,5) such as, preferably, a first read and write
  - 15 memory (4), adequate for storage and reading data, and a second read only memory(5), preferably, a non-volatile memory, an alphanumeric keyboard (6) suitable to allow access to the information as well as to the management of said plates (2), a visualisation screen (7), suitable for displaying the information relative to the operations that are carried out, and a emitter -receiver device
  - 20 (8), preferably, by infra-red rays, radio frequency signal, ultra-sounds, or any other suitable technique, able to establish communication with external devices that manage said operations, considering that in case of being integrated in a phone terminal, it is not needed to duplicate these elements, but it's use would rather be shared between the terminal and the interface, as a function of the
  - 25 actual use it is made thereof.
  - Furthermore, the user interface can be equipped with a transmitter – receiver (8a), able for reading data recorded in the identification chips, that are stimulated when they receive a radio signal in a determinate band, thereby emitting the information recorded in them.
  - 30 - The user interface can include, furthermore, encryption means that may consist of circuits (8b) dedicated to this function or it can be carried out by the microprocessor of the interface.
  - Besides that, the user interface can integrate the electronic signature, whether supported by a card provided with microprocessor and memory, or stored in a
  - 35 non-volatile memory.

- An external device (9) for managing the operations commanded by said user interface (1), that is provided with an emitter - receiver device (10), suitable to establish communication with the user interface (1), and an driving module (11) adequate to command electromechanical and/or electronic devices (12) to execute the operations commanded by said user interface (1), and optionally,

coupling means of an electronic chip or information and data carrier external plate able to perform the reading of the information contained in said external plate through said user interface (1), having contact means (22, 31) such as a printed, flexible or of any other type circuit, being able to make contact with said plates, as well as electronic connection means (18), with the main bus (19), capable to link said contact means (22, 31) with the other elements of the user interface (1).

2.- System for multiple intercommunication of data from information carrying cards provided with microprocessor and memory or similar, according to the previous claim, characterised in that the emitter - receiver device (10) is an infrared rays, radio frequency signal, ultrasound or of any other suitable technique emitter - receiver device.

3.- System for multiple intercommunication of data from information carrying cards provided with microprocessor and memory or similar, according to the previous claims, characterised in that said microprocessor (3) and memories (4, 5) contained in said user interface (1) are intended to perform functions of managing, classifying, identifying and storing of the information related to the operations performed according to criteria established in the programming of the microprocessor (3).

4.- System for multiple intercommunication of data from information carrying cards provided with microprocessor and memory or similar, according to the previous claims, characterised in that the user interface (1) incorporates protection means preferably consisting of permanent storage media (5) such as preferably, a non volatile memory for recording and storage of personal access keys able to limit the use of the user interface at different levels, such as, preferably, global access, restricted access, or user limited operations. Alternatively, said personal keys and the security and control

procedures associated to them can be incorporated in one of the information carrying cards housed in the user interface.

5 5.- System for multiple intercommunication of data from information carrying cards provided with microprocessor and memory or similar, according to the previous claims, characterised in that the user interface (1) incorporates storage means of an identification number which is individual and exclusive to said user interface,

10 6.- System for multiple intercommunication of data from information carrying cards provided with microprocessor and memory or similar, according to the previous claims, characterised in that the user interface (1) is provided with configuration and re-configuration means of said user interface, as well as for adaptation, substitution, reposition or elimination of said data and information carrying plates (2).

15 7.- System for multiple intercommunication of data from information carrying cards provided with microprocessor and memory or similar, according to the previous claims, characterised in that it has been adapted for remote communication with external devices.

20 8.- System for multiple intercommunication of data from information carrying cards provided with microprocessor and memory or similar, according to the previous claims, characterised in that the user interface (1), when it is a remote control device, is provided with a connection interface to a modem (13), able to allow remote connection and communication between said user interface (1) and a computer, allowing bi-  
25 directional data transfer between both devices. In case of being the user interface integrated in a cellular phone terminal, the terminal itself is capable of sending and receiving data using the cellular networks.

30 9.- System for multiple intercommunication of data from information carrying cards provided with microprocessor and memory or similar, according to the previous claims, characterised in that the user interface (1) is provided with a connection interface to an external reader (14) suitable to allow bi-directional communication between both, as well as the access from said reader, both to the information contained in said data and information carrying plates (2), as well as to said internal storage media (4, 5) of the  
35 user interface (1) itself.

10. - System for multiple intercommunication of data from information carrying cards provided with microprocessor and memory or similar, according to the previous claims, characterised in that it is adapted for obtaining general, bank or similar information, relative to movements of bills, balances and any other operation as well as other  
5 available information in databases of operative centres, as well as for carrying out the payment and the reception of values with anyone of the available systems for realisation of said operations.

10 11.- System for multiple intercommunication of data from information carrying cards provided with microprocessor and memory or similar, according to the previous claims, characterised in that the user interface (1) it is adapted to carry out sale and purchase operations, access to databases, etc through a computer and networks, local or world-wide type, such as, preferably, Internet.

15 12.- System for multiple intercommunication of data from information carrying cards provided with microprocessor and memory or similar, according to the previous claims, characterised in that the user interface (1) it is adapted to carry out operations of telephony collection through the available phone operative systems.

20 13.- System for multiple intercommunication of data from information carrying cards provided with microprocessor and memory or similar, according to the previous claims, characterised in that the permanent storage means (4, 5) of user interface (1) have addressable storage space for the location of a personal database, suitable to store data relative to the system itself, to the user or another type of data that it is wanted to  
25 incorporate in this database.

14.- System for multiple intercommunication of data from information carrying cards provided with microprocessor and memory or similar, according to the previous claims, characterised in that it comprises means of detection of error, alarms or similar states,  
30 suitable to detect anomalous situations due to the incorrect, inadequate, not authorised or similar use, as well as blocking means of one, several or all the manageable operations from user interface (1) as a result of the activation of said means of detection of error, alarms or similar states.

15.- System for multiple intercommunication of data from information carrying cards provided with microprocessor and memory or similar, according to the previous claims, characterised in that the user interface (1) integrates their electronic elements in an single printed, flexible or of another type circuit , configurable, capable to integrate in  
5 said circuit the realisations of said information and data carrying plates carried.

16.- System for multiple intercommunication of data from information carrying cards provided with microprocessor and memory or similar, according to the first claim, characterised in that said coupling means (17) are incorporated in the box structure  
10 itself (15) of user interface (1), consisting on a groove (20) that is provided by the superior face of said box (15) of an opening (21) suitable to be coupled to an external electronic chip through the electric contacts (22) prepared inside.

17.- System for multiple intercommunication of data from information carrying cards provided with microprocessor and memory or similar, according to the claim 16, characterised in that said opening (21) has non- movable protection means such as a small tab or similar, appropriate to protect the electric contacts (22) from dirt and other external agents.

18.- System for multiple intercommunication of data from information carrying cards provided with microprocessor and memory or similar, according to the claim 16, characterised in that said coupling means consist on a communication port (23) suitable to be connected a external reader means (24), capable to be coupled to a information and data carrying external plate embedded in a support element like a  
25 label or similar, having said external reader means (24) of coupling means (25) suitable to be coupled to said electronic chip or external plate through electric contacts (31), as well as control, command and synchronisation means of the communications with user's interface (1), by the corresponding communication protocol, of communication means (26) with said user interface (1), and of electronic circuitry (27)  
30 adequate to transform the read information of the external electronic chip by the external reader means (24) in a signal (28), that is transmitted toward the communication port (23) of user interface (1) by said corresponding communication means (26) .

19.- System for multiple intercommunication of data from information carrying cards provided with microprocessor and memory or similar, according to the claim 18, characterised in that the electronic circuitry (27) of the reader means (24) can have additionally temporary storage means (27a), as well as validation of data means (27b).

20.- System for multiple intercommunication of data from information carrying cards provided with microprocessor and memory or similar, according to the claims 18 and 19, characterised in that said external reader means (24) consists on a device included in a box (29) with substantially cylindrical or plane elongated form, having at its end coupling means (25) consisting in an opening (30) preferably located in its middle plane, capable to be coupled to an external electronic chip through said electric contacts (31), having also activation / deactivation reading means (32).

21.- System for multiple intercommunication of data from information carrying cards provided with microprocessor and memory or similar or the passive circuit being stimulated via radio, according to the previous claims, characterised in that the information and external data support may be placed in a physical element, such as vehicle, valuable object, luggage or similar for control and localisation purposes, by means of systems associated to networks of mobile telephony, thus allowing to locate a mobile telephone with certain precision or by means of the Global Positioning System (GPS), that allows to locate an equipment provided with this feature with great accuracy.

22.- System for multiple intercommunication of data from information carrying cards provided with microprocessor and memory or similar characterised in that said information and data external support of may be placed in a label or element of commercial control with purposes of confirmation and authentication of marks and characteristic of commercial products, being able to carry out the transmission of information between the chip contained in said information and data external support and said reader means establishing a physical contact between them or without physical contact.

23. Security system for its application to the system for multiple intercommunication of data from information carrying cards, characterised in that it is based on the use of a

code or identification number own of the user, associated with the code own of an element provided with memory carrying information such as a credit card or similar.

24. Security system according to the claim 23, characterised in that said code or  
5 identification number own of the user coincides with the user personal identification number (PIN).

25. Security system according with the precedent claims 23 and 24, characterised in  
10 that to be able to access to the use of anyone of the elements provided with memory carrying information, such as credit cards or similar, it will be necessary to introduce the personal access number (PIN) corresponding to the user mobile telephone or the user fingerprint, thus avoiding unauthorised use of said elements.

26. Security system equipped with elements provided with memory carrying  
15 information, according to the claim 23, just as a credit card or similar, characterised in that said memory is configured so that it will be operative only in a combined way with the system for multiple intercommunication, having its same code or number of the user identification.

- 20 27. Security system equipped with the elements provided with memory carrying information, just as a credit card or similar, according to the claim 26, characterised in that the code or number of the user identification coincides with the code assigned by the cellular phone network operator the to this user and that it is memorised in the

SIM

25